

CR-138300

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QUARTERLY PROGRESS REPORT

New England Reservoir Management
EREI Investigation #089
Report for the Period
23 January 1974 - 23 April 1974

~~Contract # NAS 9-089~~

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N74-25867

Unclas
G3/13 00551

(E74-10551) NEW ENGLAND RESERVOIR
MANAGEMENT Quarterly Progress Report, 23
Jan. - 23 Apr. 1974 (Corps of Engineers,
Waltham, Mass.) 4 p HC \$4.00 CSCL 08H

Earth Resources Experiment Package (EREP)
Progress Report #4 - 23 April 1974
Investigation #089
New England Reservoir Management

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The splashdown of the final SL-4 mission occurred on 8 February 1974 after a record of 84 days in earth orbit. During this period three passes occurred over New England and cameras were turned on during the 14 January pass providing imagery from the S190A multispectral scanner, the S190B earth terrain camera and the S192 multispectral scanner. The NASA RB57 winter photography underflight to augment the SL-4 mission was cancelled. However, we are now in the process of obtaining imagery from a U-2 flight flown over the State of New Hampshire during December 1973.

The S192 electronic screening imagery prepared from the SL-4 flight tapes for 14 January (track 29) has been received. This imagery is being analyzed and data requirements will be submitted to our Technical Monitor by 15 May. The S190A and S190B imagery from the SL-3 mission taken on 16 September 1973 have been acquired. Unfavorable cloud cover conditions over the Merrimack River test site made this imagery undesirable for our task objectives. Finally, we received 9" x 9" transparencies of the S190A imagery taken over the lower Connecticut and lower Merrimack River basins for 21 September 1973. This imagery is suitable for most of the tasks in our investigation.

Flood plain, vegetation and land use maps of the Merrimack River basin are being prepared from the RB57 imagery flown on 26

September 1973. These will be compared ultimately to similar maps to be derived from S190A, S190B, S192 and ERTS imagery. Enlargements of an S190A scene of the Boston, Massachusetts area (frame No. 306 - 21 September 1973) to determine the resolution of the S190A camera have been made at a scale of 1:800,000, 1:400,000, 1:300,000 and 1:200,000. The resolution for highly contrasting features was determined to be approximately 100 feet.

We are still anticipating receipt of the S192 data products from SL-3 and SL-4, the S190A and S190B imagery from SL-4, and the S190B imagery taken on 21 September 1973 which corresponds to the S190A imagery we are currently analyzing. Due to the delay in obtaining this Skylab imagery, a full comparison of the Skylab, ERTS and underflight imagery products has not been completed.

Our milestone chart has been revised as of 23 April 1974. The changes result from the delay in obtaining imagery caused by processing difficulties at the NASA Houston facility.

This chart has been updated to reflect Skylab mission status as of 23 April 1974